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Barrow-Digging at Martinstown, near Dorchester, 1903.

BY

H. ST. GEORGE GRAY AND CHAS. S. PRIDEAUX.

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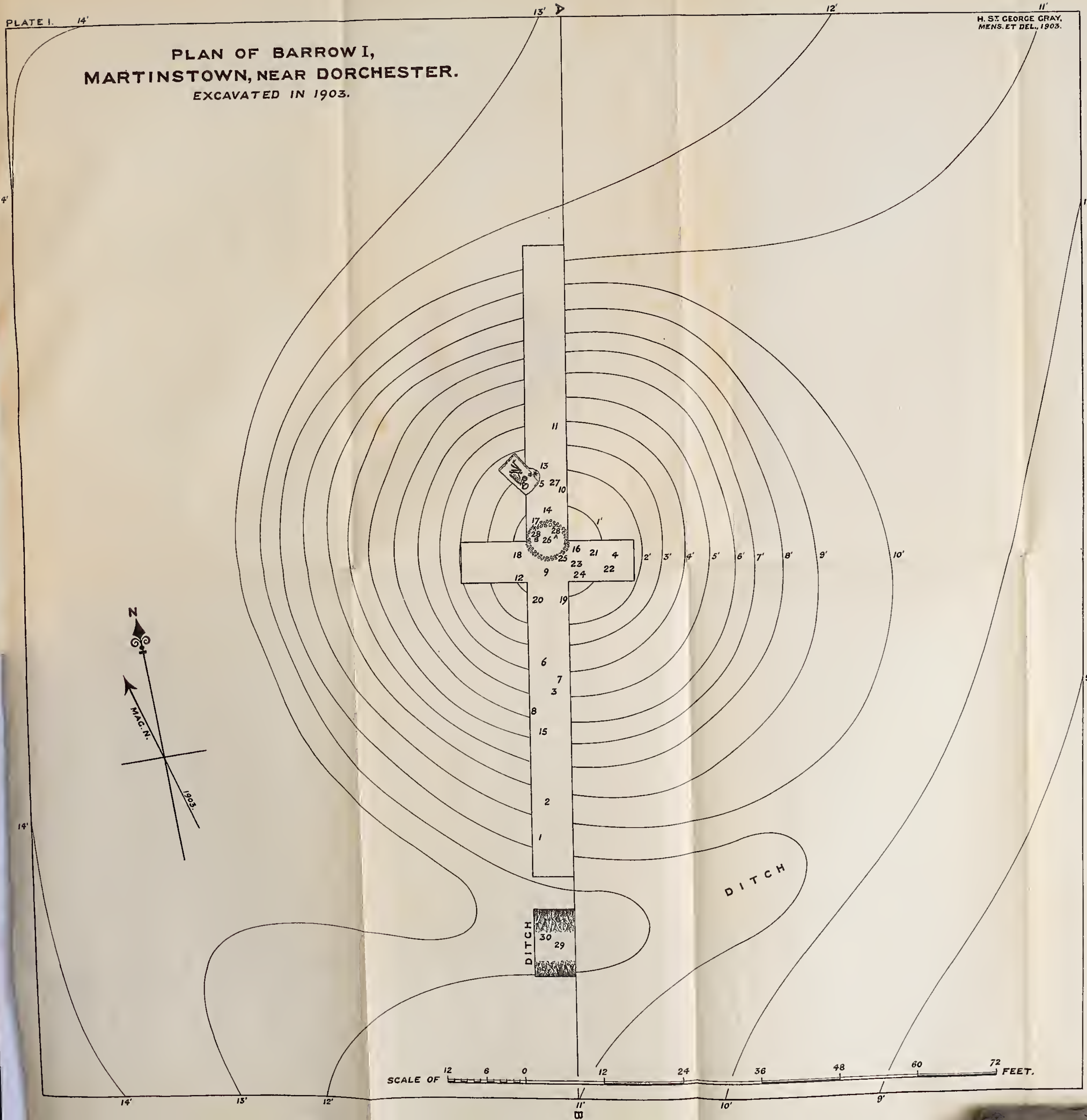
PLATE I.

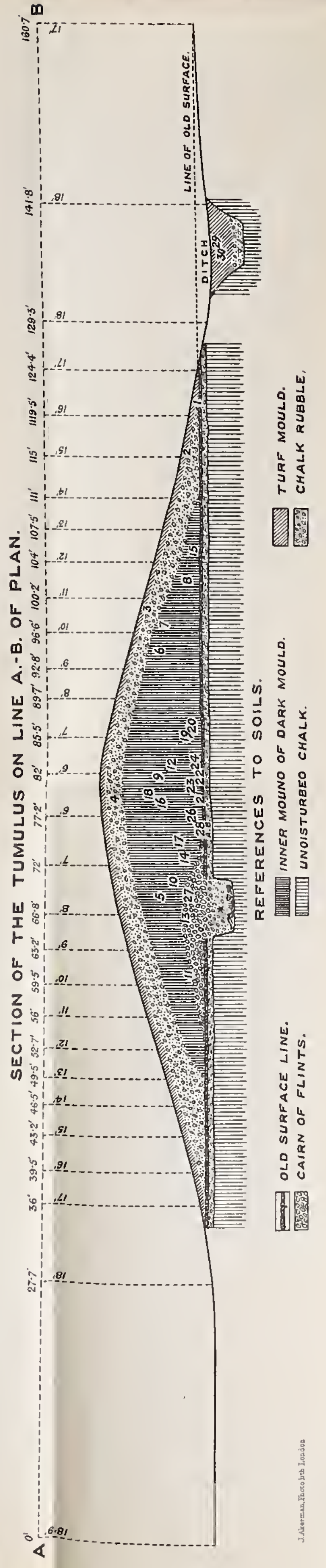
PLAN OF BARROW I, MARTINSTOWN, NEAR DORCHESTER.

EXCAVATED IN 1903.

H. ST. GEORGE GRAY, MENS. ET DEL., 1903.



SECTION OF THE TUMULUS ON LINE A.-B. OF PLAN.



REFERENCES TO SOILS.

J. Akerman, Photo-lith. London.

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Barrow-Digging at Martinstown, near Dorchester, 1903.

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By H. St. GEORGE GRAY and CHAS. S. PRIDEAUX.

(Read Feb. 1st, 1904.)

MANY—indeed by far the greater number—of our British Barrows have already been *opened*, but a very small proportion of these have been systematically excavated. The eminent men that we are accustomed to associate with barrow-digging are Greenwell, Rolleston, Pitt-Rivers, Thurnam, Hoare, and Bateman. Of these Canon Greenwell may be considered the father of barrow-digging. The work of Sir R. C. Hoare and Mr. Bateman was unsystematic, whilst that of General Pitt-Rivers was as methodical and thorough as possible.

It was on the lines of Pitt-Rivers that we turned our attention to these Martinstown Barrows, which, fortunately, proved not to have been previously excavated, although several barrows in sight of those under consideration—both on the Ridgeway and elsewhere—bear external appearances of having been opened.

Every facility was offered by the owner of the land, Mr. W. E. Hawkins, who readily acquiesced in the carrying out of the work and evinced considerable interest in the progress of the operations.

BARROW I.

Its Situation.—This barrow, like Nos. 2 and 3, is in the parish of Martinstown, otherwise Winterborne St. Martin, and is situated at a distance of 3¼ miles south-west of Dorchester and 5½ miles from the centre of Weymouth. Martinstown Church is 6 furlongs to the north of the barrow; the nearest point of the Ridgeway overlooking Weymouth is 5 furlongs due south. The barrow is 7¾ furlongs south-west of the famous Clandown Barrow, nearly 12 furlongs west-by-south from the centre of Maiden Castle, and about 1 furlong to the north-west of Mr. Hawkins' Barn.* The central barrow on Four Barrow Hill is ⅓ mile to the north-east.

Barrow I. is about 487 feet above sea-level and 230 feet higher than the village of Martinstown. (The Ridgeway near is 550 feet above sea-level, and the highest point of Maiden Castle about 432 feet.)

Description before Excavation.—The barrow stands in a large grass field, the summit being at an average height of 12 feet above the surrounding turf-level. It is surrounded by a ditch which has totally silted up except on the south-west, south, and south-east, as shown by the contours on the plan. The approximate diameter of the mound, that is from ditch to ditch, is 103 feet; the diameter at the point where the "old surface line" under the tumulus crops out is about 91 feet. (A depression was observable on the summit of the mound, not shown on the plan: Mr. Hawkins informed us that his sons, a few years ago, had commenced to make an excavation into the barrow, but evidently soon got tired of it.)

During the operations, which extended over six working days, May 22nd to 29th, 1903, not including the time occupied in filling in and turfing over, the writers, in order that they might devote themselves entirely to the work, lived and slept in a tent pitched within a stone's throw of the barrow. The working plan was commenced on the first day; a square, 161 feet on each side, was picketed off round the barrow, enclosing an area of about 0·6 of an acre, the plan (Plate I.) being plotted to a scale of 144 to 1, in other words 12 feet to an inch.* The contours of 1 foot vertical height show the shape of the barrow and its immediate surroundings within the "square." The highest contour, of course, comes on the summit of the barrow; the lowest on the western side of the plan, showing a fall of 14 feet from top to lowest part in the "square."

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* Eweleaze Barn.

Excavation into the Barrow.—As will be seen by the plan, a cutting 6 feet wide was made through the barrow, nearly on the line of the true north and south †; and in the centre a cross-cutting was dug, to an extent of 13 feet on both sides of the main cutting, from the central picket. Until the completion of the excavation down to the undisturbed chalk (or to about that level) in all parts of the cutting, a pillar was left in the "centre" from which tape measurements could be made. This pillar, which is well shown in the general photographic view of the barrow, was afterwards removed, when no longer of service as a "fixed point" for measuring purposes.

This photograph, taken from the N.N.E., Plate II., not only gives an excellent idea of the excavation-operations in progress, but also distinctly shows the internal structure of the barrow. A mound of almost pure mould or turf was first thrown over the interments, measuring about 61 feet in diameter, and 8½ feet in height.‡ This was surmounted and entirely covered by chalk rubble (*i.e.*, pieces of chalk mixed with flints and a little mould, which is clearly shown in the sectional diagram). Finally, turf began to form, and a certain amount of surface mould would slowly be deposited as vegetable matter decayed. This turf and turf-mould were found to average about 0·6 foot in thickness all through the cutting. The only relics found in this layer were two fragments of Romano-British pottery just under the turf, 2 and 3 on plan and section. In the chalk rubble, only one relic of any importance was found, viz., a flint scraper, at a depth of 1½ foot (4 on plan and section). On the "old surface line" at 1, but outside the bounds of the internal mound of mould, a large, white, flint scraper, was found. All the other relics were discovered in the mound of mould and on the old surface line on which the barrow was thrown up. The chief flint implements found in this mound of mould were:—A saw, a hollow-scraper of a rare type, portion of a chipped celt, a well-formed scraper, a knife, a fabricator or flaking-tool, and an extremely fine borer. No polishing or grinding was observed on any of the flint implements discovered here. At 5 an important piece of pottery was unearthed,—a fragment of an *early* Bronze Age beaker; we say "early," in accordance with the Hon. John Abercromby's recent papers on the subject.* In patches near the centre of the barrow imperfectly-fired red clay was found.

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* The surveying instruments were kindly lent by Capt. Acland and Mr. G. J. Hunt. We also received help in many other ways from Dr. Colley March, F.S.A., the Rev. S. J. F. Kent, and Mr. W. de C. Prideaux.

† The north point could only be included on the plan after the commencement of the cutting, as our prismatic compass was out of order at the beginning of the operations.

‡ The cairn of flints covered by this mound will be mentioned in speaking of the interments.

Detailed Description of the "Finds" found in the Cutting.—The following descriptive list represents the relics found in the barrow, other than those connected with the interments. All are marked on the plan, Plate I., and are projected into the sectional diagram at their respective depths:—

Found outside the Mound of Mould.

1. Large white flint scraper of horse-shoe form, with prominent bulb and good example of conchoidal fracture; depth 0·5 foot, on the old surface line outside mound of mould.

2. Fragment of thin Romano-British pottery, red on outside, greyish-brown on inside, depth 0·3 foot in surface mould.

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* Journal Anthrop. Inst., Vol. XXXII., pp. 373—396; and Proc., Soc. Antiq. Scot., Vol. XXXVIII., pp. 324—410.

3. Fragment of ditto, depth 0·5 foot in surface mould.

4. Flint scraper of oval form, but only slightly worked, depth 1·5 foot in chalk rubble.

Found in the "Mound of Mould" and on the Old Surface Line.

5. Fragment of thin pottery of the Early Bronze Age beaker type, ornamented with lines of square indentations close together; light red on both sides, black in the interior; depth 5 feet.

6. Worked flint of no particular interest, depth 3·4 feet.

7. Ditto ,, ,, ,, 3 feet.

8. Flint flake, worked and showing indications of prolonged use, depth 4·2 feet.

9. Flint saw (Plate III., No. 9), consisting of a long, narrow, thin flake, with fine serrations along one edge—21 teeth in a length of 19 mm.; along the opposite edge is a notch, worked, probably used for needle-shafting. Depth 6·2 feet.

10. Grey flint implement (Plate III., No. 10), of a type which has sometimes been described as a hollow-scraper, and almost precisely similar to Evans, 1st edit., p. 291, fig. 231, from the Yorkshire Wolds* and Pitt-Rivers, Vol. IV., Plate 311, fig. 7, from Martin Down Camp, South Wilts (Farnham Museum, N. Dorset). It is of somewhat triangular form, with sides of 40 mm., 38 mm., and 34 mm. respectively; one edge is straight, another is concave, the third convex. One angle is rounded, the others pointed. One face is flat and unchipped, the other face has finely chipped and bevelled edges on the straight and concave side; the convex edge is only slightly serrated and is bounded at about 12 mm. from the edge by a ridge across the implement. The cross-section in every direction is bi-convex. Greatest thickness 4·5 mm. Depth from the surface, 6·7 feet.

11. Butt end of a roughly-chipped flint celt (Plate III., No. 11); greatest thickness 18 mm.; the end is rounded and

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* Exhibited in the Mortimer Museum at Driffield. See Catalogue, 1900, p. 59, fig. 37.

bevelled off from both faces; it shows indications of little or no use. Depth 5·8 feet.

12. An extremely fine flint borer (Plate III., No. 12), consisting of a flint flake with a tapering and projecting spur, so fine that it would serve admirably for boring the eyes of bone needles such as have been frequently found in the French caves. In this instance the two curved sweeps by which the boring part of the tool is formed have been chipped from the opposite faces of the flake, so that the cutting-edges are at opposite angles of the blade, which is of rhomboidal section. Such a tool is, of course, well adapted for boring by being turned in the hole continuously in one direction. The secondary chipping extends on both edges nearly to the base of the instrument. It is composed of greyish-brown translucent flint. The bulb of percussion is well marked on one face and exhibits a good example of *éraillure*. The very tip of the borer appears to have been broken off. Total length, 30 mm.; width at base 26 mm.; greatest thickness 6·5 mm. Found at a depth of 7·5 feet.

13. Large, oval, flint scraper (Plate III., No. 13), of blackish-brown colour, with secondary chipping at end and on one side; the bulb side presents a considerable curvature, to a depth of 6 mm. Found at a depth of 7 feet from the surface, at top of the cairn of flints.

14. Long, duckbill-shaped flint scraper, of a slaty colour, with a "squared" scraping-edge, and a well-defined median ridge running along back, giving a triangular cross-section to the implement. Depth 8·2 feet.

15. Portion of an implement of yellowish-brown translucent flint, finely chipped on one face. Possibly the larger part of a fabricator (Plate III., No. 15). Depth 4 feet.

16. Broken flint implement, bearing excellent examples of conchoidal fracture and ripple-flaking. The smooth face exhibits a prominent bulb of percussion. Depth 6·7 feet.

17. Black flint scraper, with a very obtuse bevelled edge at upper end. Depth 7·8 feet.

18. Finely curved, dark brown, flint flake, with four dorsal ridges, the edges slightly worked; at one end is a small finely-worked recess. Depth 5·3 feet.

19. Flint knife (Plate III., No. 19), of a somewhat long and narrow ovate form; light yellowish-brown colour; concavo-convex cross-section; finely-worked, particularly along one of the edges, oblique dorsal ridge across the implement. Greatest length, 63 mm.; greatest width, 27 mm. Depth 8·4 feet.

20. Bluish-grey flint end-scraper, finely-worked; of an elongated type; the under-face presents an ogee curve; the bevelled "business-end" is very acute; outer coating of the flint covers nearly one-half of the chipped side. Depth 8·6 feet.

21. A very roughly-chipped flint scraper, found on the old surface line.

22. Flint arrow-shafter, or hollow-scraper, of a slaty colour; dorsal ridge lengthwise, which bifurcates near base; the notch is almost semi-circular and not finely chipped. Found on the old surface line.

23. Clumsy, white flint hollow-scraper, roughly chipped, having incurved cutting-edges on opposite sides. Found on the old surface line.

24. Horseshoe-shaped flint scraper, with large prominent bulb on its lower face; the bevelled edges finely chipped. It has been in contact with fire. Found on the old surface line.

25. Large flint scraper, with semi-circular bevelled "business-end," rather roughly chipped. The base and part of one side of the scraper are surmounted by a raised portion of the outer coating of the flint from which the scraper was formed, giving an excellent grip for the thumb. The implement shows little signs of wear. Found on the old surface line.

26. Long, narrow, light grey-coloured, flint fabricator, or flaking-tool (Plate III., No. 26), of almost plano-convex section across the middle, well formed and chipped, and having a very smooth surface on both faces, indicating prolonged use; 71 mm. in length; greatest width, 18 mm.; greatest thickness, 10 mm. It presents a blunted, worn, and rounded appearance at the

edges, resulting from attrition against hard substances. Found 1·3 foot above the old surface line.

27. Rough flint implement, of quadrangular cross-section; it appears to have been fractured subsequently to manufacture. Depth 7·8 feet from the surface, at the top of cairn of flints.

Excavation into the Ditch.—During the excavation of the cutting through the barrow the attention of the investigators was also turned to the ditch which apparently encircled the barrow. The spot chosen was at a point where the ditch was fairly well marked—viz., in continuation of the main cutting and on the south, where the surface of the silting was about 1 foot lower than the level of the adjacent land. This cutting was also made 6 feet wide. At a depth of 0·4 foot in mould (29 on Plan and Section), a duckbill-shaped flint scraper was found, having a sharp dorsal ridge and presenting a triangular cross-section. The rounded "business-end," however, shows little indication of secondary chipping. At a lower level—viz., 0·8 foot—a worked flint flake was unearthed (30 on Plan and Section). Nothing else was found here but 91 flint flakes and a flint core.* The hard chalk floor of the fosse was reached at a depth of 3·5 feet from the surface of the silting. The width at the top proved to be 10·4 feet, at bottom 4·5 feet. The sides of the ditch were slightly incurved, as shown in the sectional diagram. The filling consisted chiefly of mould, with about 1 foot of chalk rubble at the bottom.

It is quite probable that the chalk obtained during the formation of the encircling fosse was, after the burial obsequies, thrown over the large mound of mould, and formed the chalk rubble and outer covering of the barrow.

The condition of the sides of this somewhat shallow ditch did not suggest what tools were used in its formation, but, as the writers are of opinion that the date of the barrow should be assigned to a period considerably anterior to the fully-developed Bronze Age, the probability is that stone chisels and mauls and deer-horn antlers * (picks) were used rather than bronze celts and palstaves in the process of construction. Near the bottom of the Angle Ditch on Handley Down, Dorset, General Pitt-Rivers found the chalk sides of the ditch distinctly scored with nearly vertical indentations, or "spud-marks," which he suggested might have been caused by some kind of spud or palstave being forced downwards.† The Angle Ditch was proved to be of the Bronze Age, but, judging from the nature of the relics discovered in it, it appears to be of somewhat later Bronze Age date than the barrow under consideration.

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* One flint core was also found in the main cutting of barrow.

Interments in the Barrow.—The barrow, or rather that portion of it which was excavated—probably not more than one-tenth of the whole structure—produced two distinct interments.

A little to the north of the centre of the main cutting, and on the level of the old surface line, a nearly circular ring or wall of large flints was discovered (indicated on the plan); greatest diameter, 6½ feet. Within this enclosure, at 26, and at a level of 1·3 foot above the old surface line, the flint fabricator, previously described, was found. On the north-east of this enclosure, jambed between two flints on the inner edge of the ring, and at a depth of 10·3 feet from the surface of the barrow, a bronze knife-dagger was discovered at the spot marked 28*a* on Plan and Section, and Plate IV. It was, unfortunately, fractured near the tip by the weight of the superincumbent material, and was coated in parts by what at once appeared to be the remains of its wooden sheath, in which perhaps the chief interest centres. It is of a somewhat highly-developed form of knife-dagger, and of a type not uncommonly found with interments of about the middle of the Bronze period. In its present state it is 5⅝ inches in length, being about 6½ inches long in its original condition. It was provided with three rivets (portions of two of which remain) for attaching the blade to the handle, which was probably composed of some perishable material. The greater part of the blade is, unfortunately, much corroded, but those parts not so affected are finely patinated. It has the usual bevelled edges on both sides of the blade, and is ornamented by two indented lines running parallel to the cutting-edges. The thickness of the blade along the median ridge, which is not very pronounced, is about 6 mm. (¼ inch).

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* See "Arbor Low Excavations" by H. St. G. Gray, Archæologia, Vol. LVIII., pt. 2, p. 469.

† Excavations in Cranborne Chase, Vol. IV., p. 104. This reference may prove of value to archæologists engaged in the re-excavation of ditches.

The remains of the wooden sheath of this knife-dagger are extremely interesting, and small portions of it still adhere to the corroded bronze. The rest flaked off the blade when it became quite dry. It was, however, closely examined at the time of its discovery, when it was observed that the fibre of the wood ran transversely and formed a broad band round the mouth of the sheath, whilst the fibres of the wood in the remaining parts were seen to be vertical. "The find" was sent without delay to Mr. C. H. Read, F.S.A., of the British Museum, who, after a careful examination, wrote :—

"There was a carefully-made mouth to the sheath, but I do not quite understand it, for there are no signs of a rebate joining the transverse portion to the vertically-fibred part."

Through his kindness the dagger and remains of its sheath were sent to Sir W. T. Thiselton-Dyer, K.C.M.G., Royal Gardens, Kew, where the wood was microscopically examined by Mr. L. A. Boodle, who wrote the following report :—

"The wood belongs to a species of Salix (willow). The determination is based chiefly on :—(1) The arrangement and size of the vessels, the simple nature of the perforations of the latter, the size and shape of the bordered pits; (2) the large proportion of fibres in the remainder of the woody tissue; (3) the numerous medullary rays one cell in thickness, the proportional size of the two kinds of cells forming the medullary rays, and the nature of the pitting of the shorter of these cells. The wood of *Populus* is very similar, but the proportional size of the different cells of the medullary rays sufficiently distinguishes it.

Bark is attached to the wood, but its structure is badly preserved."

Between 28*a* and 28*b* (see Plan), a distance of 3 feet, a black burnt deposit * was observed. It was of unusually fine texture, and appeared to be the remains and ashes of a very complete cremation. This material increased in bulk as the excavation was extended westward from 28*a*. To the west of 28*b* it ceased, and at this point, where the burnt material was most plentiful, three fragments of an ornamental "incense-cup" were discovered, which, on being washed, were found to belong to the same vessel, and to fit together. (Fig. 28*b*, Pl. IV.) From the circumstances of the finding it was evident that these pieces had been deposited here as fragments. Other portions of the vessel were eagerly sought for, but without success, and only part of the bottom and side of the "incense-cup" were recovered. The rim was entirely absent, but enough remains to enable us to state that the diameter of the base was about 2¾ inches. The decoration on the side, consisting of a twisted cord pattern arranged horizontally and crosswise, is of quite a usual character; but the cup is of particular interest from the fact that it is ornamented on the base—viz., by triangular punch-marks arranged concentrically. These marks are in the form of isosceles triangles, the apex being deeply indented, whilst the base is represented by the surface of the bottom of the cup. Somewhat similar indentations are seen on a Bronze Age vessel in the Dorset County Museum (No. C93) found in the smaller Clandown Barrow in 1882.† Deep triangular indentations are also seen on an urn found in a barrow on the Ridgeway Hill in February, 1837 (Hall Collection, Dorset County Museum).

Near the "incense-cup," and embedded in the burnt material, a small flint flake with well-marked *éraillure* was found. On the northern side of the enclosure just described nodules of flint were very plentiful, and soon it became apparent that the arrangement of them had some significance. (See sectional diagram, Pl. I.) As the excavation was pushed forward in a N.N.W. direction, the nodules were seen to be continuous, and were found at a higher level as the work progressed. It was, therefore, obvious that the flints represented a stone cairn, the precise size of which could only be ascertained approximately owing to its extending considerably beyond the limits of the main cutting on the north-west. The cutting was, however, widened to a certain extent at this point, and it was fortunate that this was done, as a most interesting interment by inhumation, undoubtedly the primary interment, rewarded the excavators for the hard work entailed in removing the greater part of the cairn of flints.

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* This has not yet been examined by an expert microscopist.

† Figured in Proc. Soc. Antiq. Scot., Vol. XXXVIII., p. 382, No. 54.

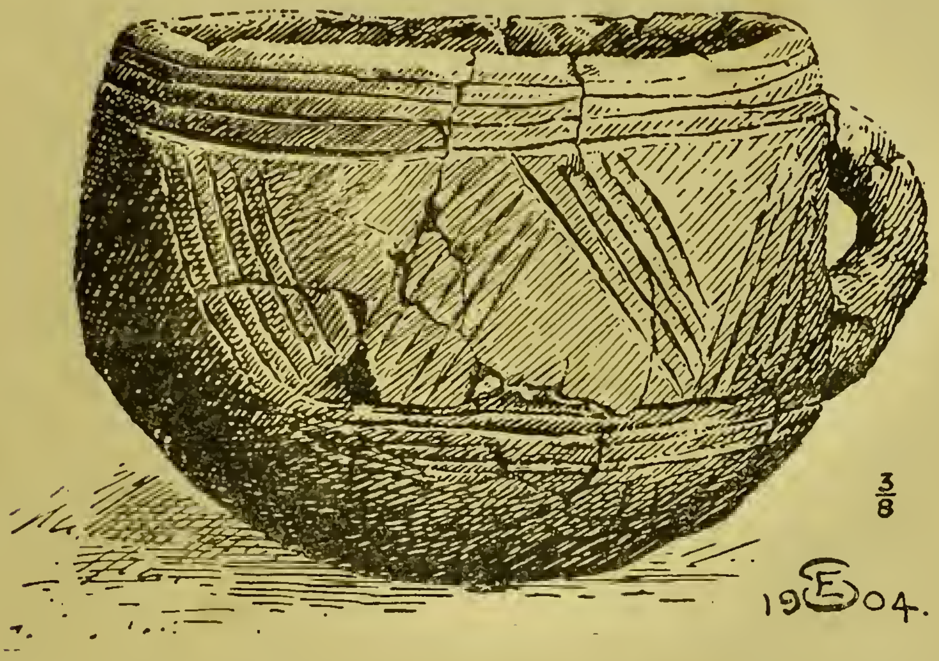
The southern corner of the grave, cut out of the solid chalk, was soon discovered at a distance of 10·4 feet from the central picket of the barrow in a northerly direction. As the western corner of the grave proved to be 4 feet from the edge of the main cutting, and although, as stated before, the cutting was considerably widened here, this wall or side had to be considerably "underpicked" to afford room to uncover the interment in a systematic manner.

The upper edges of the oblong grave, measuring 5·8 feet by 3·7 feet, having been laid bare, great care was bestowed in removing the chalk rubble which filled the grave. Both above and below the upper edges of the grave a quantity of fragmentary human remains (including pieces of skull, some abnormally thick, in one or two cases 9 mm.) and many flint flakes were found mixed with the chalk rubble and the nodules of flint. At this stage it was found impossible to continue to preserve and count the flint flakes found in the barrow. The investigators, however, think it desirable to record that 1,298 flint flakes were counted, many of the best being preserved.

The skull of the skeleton (Plate IV.), was discovered resting on the bottom of the grave on its right side and facing north-east. As will be seen by reference to the plan and the photograph of the interment (Pl. V.), the skeleton was in a contracted posture, the vertebral column, however, being fairly straight. The legs were drawn up to very acute angles at the knees, especially in the case of the right leg. The depth from the surface of the barrow, vertically, to the bottom of the grave under the feet of the skeleton was 12·4 feet. Between the skull and knees the food-vessel, represented in Pl. IV., Fig. 31, was found, with the left arm resting across one side of the rim and the right arm underneath the vessel. Although the pot was cracked by the weight of the superincumbent chalk and flints, it was removed from the grave in a fairly complete state. The handle, in which the chief interest centres on account of its rarity, was not lost during the removal of the food-vessel, but was evidently deficient at the time of interment. This is made clear (1) from the fact that the stumps of the handle did not present clean fractures, and (2) because, after considerable search, the missing portions were not discovered.

This rare form of food-vessel is well worthy of a full description. It holds 71 fluid ounces. The photograph (Pl. IV., Fig. 31), represents it at a scale of $\frac{3}{8}$ linear. The exterior diameter at rim averages $7\frac{1}{2}$ inches (it is not quite circular); height, $4\frac{3}{4}$ inches; maximum thickness of sides round rim, $\frac{3}{8}$ inch. The sides are almost vertical from the rim to 2 inches below it, from which point to the base the vessel gradually lessens in diameter, being $4\frac{1}{4}$ inches at the bottom.

With regard to the decoration, the pot is divided into three sections horizontally, each section being separated by a pair of continuous lines of oblong punch-marks conjoined. These lines are very irregular and broken in places, and average $\frac{1}{4}$ inch apart. Each of the two upper sections is ornamented by three rows of lozenge-shaped punch-marks. The lines are closer together in the upper section, and individually the indentations are closer together than in the section below. The length of the lozenges averages 8·5 mm., and the width 5·5 mm. The lower section is undecorated. The small remaining portion of the handle bears distinct traces of having been ornamented in the same manner as the body of the vessel. The top of the handle is $\frac{3}{4}$ inch from the rim, the total height of the handle being $2\frac{3}{4}$ inches. The colour of the vessel is a light reddish-brown; it consists of clay, apparently without any grains of quartz or other material, and, therefore, is an example of the "No. 2 British Pottery" of Pitt-Rivers.



A food-vessel very closely resembling that under consideration—and especially with regard to its form—was found in a barrow at Frome Whitfield, in which three human skeletons, &c., were also found (Dorset County Museum, No. C101). This food-vessel is ornamented with two bands of roughly-incised horizontal lines, between which are similar incised lines arranged in chevrons. Another one-handled food-vessel, about $2\frac{7}{8}$ inches in height, was found in 1895 by Mr. J. C. Mansel-Pleydell in a barrow at Bagber, near Milton Abbas (Dorset County Museum, No. C52). One, apparently very small, from Dorset is figured by Jewitt.* Another of this type, $2\frac{1}{2}$ inches in height and 4 inches in diameter at mouth, was found before 1868 in the Isle of Portland, with "the handle, or ear, at one side, precisely resembling that of the modern teacup." †

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* Grave Mounds, p. 106, Fig. 120.

† Archæological Journal, Vol. XXV., p. 49, Fig. 5.

This type of vessel was classed under the head of "Culinary Pottery" by Dr. John Thurnam in his famous paper on "Ancient British Barrows" in the forty-third volume of "Archæologia." He describes pots belonging to this type as being "plain, semi-globular vessels, with bowed handles (one handle), holding about a pint, resembling the common vessels known as pipkins." He figures one in Pl. 29, Fig. 10, from a barrow at Collingburn Ducis (Devizes Museum). A one-handled vessel, with four feet, was found by Sir R. Colt Hoare in a barrow at Woodyates.* With regard to these examples, Thurnam says: "Both were with unburnt bodies and seem to have taken the place of more befitting drinking-cups or food-vessels." †

The same applies to the somewhat larger pipkin found by the Rev. J. H. Austen in a barrow on Ballard Down, near Ulwell, in the Isle of Purbeck, 1856 or 1857.

Amongst the small handled cups must be mentioned one from Wereham, Norfolk, 4 inches high, and now in the Cambridge Museum. The British Museum possesses a handled cup from Denzell, Cornwall; height, 3⅞ inches. ‡ A one-handled cup, 5¾ inches high, of quite a different type to our Martinstown specimen, was found in a cist at Balmuick, near Comrie, Perthshire, and is in the possession of Colonel Williamson, of Lawers. §

The Dorset County Museum (No. C64) also contains another interesting one-handled vessel of the Bronze Age, found with a human skeleton in a circular cist 3 feet in diameter, and 3½ feet from the surface, at Wynford Eagle. || It is of tankard shape, about 5⅝ inches in height, with perfectly vertical sides, and with one bowed handle projecting from the middle of the side. A series of pottery vessels with single and double handles from German barrows is exhibited in the British Museum.

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* Ancient Wiltshire, Vol. I., p. 237, Pl. 33, Fig. 2.

† Purbeck Papers, I., 159, Fig. 2. Warne's Celtic Tumuli, III., 71.

‡ Figured in The Connoisseur, Vol. IX., p. 186.

§ Proc. Soc. Antiq. Scotland, XVIII., 307, and Anderson's Scotland in Pagan Times (Bronze and Stone Ages), Fig. 97.

|| Warne's Celtic Tumuli, p. 36.

Beakers, or drinking-cups, with one handle, are also extremely rare. A fine example of this type was found at March (Cambs.)[1]; another at Pickering (North Riding of Yorks)[1]; and another at Appledore (Berks)[2], in 1828. A one-handled drinking-vessel, height 7⅛ inches, was found by Canon Greenwell at Goodmanham, E. Riding, Yorks[3]. Another comes from Denton, near Grantham[4]; and another was found at Brixworth in 1890[5].

Incense-cups, too, in very exceptional cases are provided with handles. Perhaps the two best known examples are those from Darley Dale (Derbyshire)[6], and Bagnalstown (Carlow)[7]. Another, which originally had four handles, was found at Badbury (Dorset)[8].

On the east side of the grave the solid chalk had been cut away to form a slight ledge or shelf, shown in the plan. On this ledge, which was sloped off towards the bottom of the grave, the osteological remains of three infants were found, indicated by a star in the plan and a section, and, between them and the contracted human skeleton and handled food-vessel, a smaller food-vessel, no doubt connected with the burial of the infants, was found, and was removed entire. It holds 7½ fluid ounces. The photograph (Plate IV., Fig. 32), represents it ⅜ linear; it is 3¼in. high; exterior diameter at rim 3½in.; diameter at base 2in.; thickness at rim $\frac{5}{16}$in.; thickness at base ½in. It is of a light reddish-brown colour, and corresponds to the No. 2 quality of British pottery of Pitt-Rivers, without any quartz grains in its composition. The surface of this food-vessel, which is very uneven, has no ornamentation. The west, south-west, south, and south-east walls of the grave presented a smooth face of solid chalk. The sides of the grave in the other parts appear to have been built up with large slabs of chalk.

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[1] Figured in The Connoisseur, Vol. IX., p. 185. Now in the Ely Museum.

[2] Archæologia, Vol. XLIII., p. 397.

[3] British Barrows, Fig. 86, p. 99. Now in the British Museum.

[4] Figured in The Connoisseur, Vol. VIII., p. 250.

[5] Figured in The Connoisseur, Vol. IX., p. 186. Now in Northampton Museum.

[6] Archæologia, Vol. XLIII., p. 358; The Reliquary, IV., 205, Pl. XXII.; Grave Mounds, p. 107, Fig. 68. This example was found with a cinerary urn. Jewitt in Grave Mounds gives another (Fig. 70) without locality.

[7] Archæologia, Vol. XLIII., p. 365.

[8] Arch. Journal, Vol. III., p. 351.

The skeleton proved to be male, and two views of the skull, viz., *norma lateralis* and *norma facialis*, are figured in Plate IV., Fig. 33, at a scale of $\frac{1}{3}$ linear. These human remains, being of considerable importance from a racial point of view, were submitted to Dr. J. G. Garson, Assist. Genl. Sec. of the British Association, and through his kindness we are able to add a valuable Appendix to this paper.

Further excavations are the only means of determining whether the barrow contains any other primary interments in clean-cut graves in the chalk. It will be observed on reference to the plan that the secondary interment by cremation, "28B" (with bronze knife-dagger at "28A"), is in a far more central position in the barrow than the primary interment by inhumation.

It seems to the investigators quite probable—although there is nothing to afford proof—that a cairn of flints was thrown over the primary interment and covered, perhaps, by a little mould or turf, and that subsequently (probably at no great interval of time) to the secondary interment by cremation being deposited on the "old surface line" a larger mound was formed, this latter interment being regarded as approximately in the centre of the barrow.

It might be recorded here that bronze knives and daggers are more frequently found with burnt bodies than with unburnt ones. Out of 60 recorded by Thurnam from Wiltshire Barrows, 16 only were found with skeletons, whilst 44 were associated with cremated remains.*

At the conclusion of the operations in May, 1903, the large cutting through Barrow 1 was filled in and re-turfed.

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* Archæologia, Vol. XLIII., p. 442.

EXCAVATION OF BARROWS 2 AND 3.

The excavations at Martinstown were resumed on September 3rd, 1903, and continued for seven working days till September 11th. On this occasion the camp was pitched about a furlong due south of Mr. Hawkins' barn. The spot selected was itself possibly a Bronze Age burial-ground; the tents were erected in a circular depression which at a first glance might be taken for the site of a formerly-existing pond. We failed to find any evidence of its having been lined with clay. The depression is encompassed by a bank measuring 76 feet in diameter and about 3 feet above the surrounding field, the crest of the bank being about 4½ feet above the centre of the shallow, basin-shaped depression. The crow-bar was brought into requisition here, and was found to strike hard substance, probably flints, within a few inches of the surface. We believe that these depressions have been very infrequently observed by archæologists elsewhere, although we are unable to say whether any have been excavated.

BARROW 2.

Barrow 2 is marked on the Ordnance Sheets, and is situated in an arable field at a distance of ¼ mile to the S.S.E. of Barrow 1 and only a few feet from the western hedge of the field. Its elevation on the surface was very slight—not more than a foot—for which the plough, of course, is responsible. In a few years' time all trace of it would have disappeared; and it was for this particular reason that we turned our attention to it. Being so flattened, it was thought unnecessary to make any sort of plan of the site.

We started here, in the usual way, by digging a narrow trench north and south, and had only proceeded about a foot below the surface, and the same distance from the end of the trench, when we came on the edge of a grave hewn out of the solid chalk. This edge was traced all round, and in so doing a large quantity of nodular flints, mixed with chalk rubble, was removed, together with numerous human bones, as well as some burnt bones. The unburnt remains included several nearly entire femora, tibiæ, and humeri. This cairn of flints and its accompanying human remains resembled those found in Barrows 1 and 3. These flints, which were reached at a depth of 6 inches from the surface, were found to extend within a few inches of the bottom of the grave. Amongst them one flint scraper (Plate VI., top right-hand corner), and a few flint flakes were found; also 15 fragments of pottery of the No. 2 quality of British, including ten small fragments (some ornamented with finger-nail marks) which appeared to belong to one vessel, and a piece of rim decorated externally and internally by lines of twisted-cord pattern (Plate VI., at top). A somewhat similar fragment of rim was found in Barrow 26, Handley Down.*

A continuation of the excavation here resulted in the uncovering of a contracted human skeleton, lying on its right side, at the bottom of a grave cut in the hard chalk. The following are the dimensions of the grave:—

Depth from summit of barrow, 3·7 feet.
Depth in the solid chalk, 2·2 feet.
Length of grave at top, 7·6 feet.
Do. bottom, 6·7 feet.
Greatest width at top, 5 feet.
Do. bottom, 3·7 feet.
The grave more or less squared at feet-end, rounded at head-end.
Skull, 1·7 feet from S.E. end of grave.
Fairly flat bottom to grave.
Slight ledge on N.E. side, on which a few fragments of the pottery were found.
Smooth chalk walls on all sides except the S.W.

The skeleton was found to be contracted in the general direction of E. 46° S. It lay rather nearer the N.E. side of the grave than the S.W. side, and the skull was at a distance of

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* Excavations in Cranborne Chase, Vol. IV., Plate 294, Fig. 2.

22 feet from the hedge of the field to the west. The skull, facing north, was much damaged, and the skeleton was not in a good state of preservation. The measurement from top of skull to tip of toes was 3·9 feet, and the width from right patella to back of pelvis 2·1 feet. The knees were drawn up at a very acute angle. The left hand rested on the right forearm; the right hand below right side of ilium. The epiphyses of the bones were not attached, the age being about 19 years; probably male. The approximate length of the right femur was taken as 1·475 feet, and the right tibia 1·2 feet, giving an estimated stature, according to Rollet's method, of 5ft. 5·2in.

No relics were found *with* this skeleton, and being so young and much fractured, and therefore useless for scientific purposes, the remains were carefully covered up, a leaden plate being deposited with it bearing the date of excavation and the names of the explorers.

Barrow 3.

Its Situation and Size.—Barrow 3 is in the same arable field as Barrow 2, a lane connecting the Ridgeway with Martinstown and Dorchester dividing the barrows from the barn. To be more precise, Barrow 3 is situated 70 feet from the western hedge of the field and 125 paces from the northern hedge. It is also 125 paces to the N.N.E. of Barrow 2 and 1½ furlong south-east of Barrow 1.

Barrow 3 has, like Barrow 2, been much reduced in height by agriculture and the plough, but not nearly to such a great extent as the much smaller Barrow, No. 2.

A plan was made as the work of excavation proceeded, but contours were in this case considered unnecessary. Approximately, the barrow is 93 feet in diameter, and at the present time about 2¾ feet above the old surface line, at the highest part, although, no doubt, it originally stood as high as the turf-clad Barrow No. 1. We are unable to say with certainty whether Barrow 3 was enclosed within a ditch, and time did not allow of it being tested.

Excavation of the Barrow.—As in the case of Barrow 1, a cutting was commenced on the south, 6 feet wide, and was extended in a N.N.E. direction * to a distance of 35 feet. Owing to the discovery of graves and various relics—as the sketch-plan shows—the original 6 feet cutting had to be greatly enlarged on both sides as the work went forward. All the ground within the area of the plan was excavated down to the undisturbed chalk.

The miscellaneous "finds," apart from the interments, were numbered from 1 to 20, and consisted for the most part of flint implements, the majority being scrapers. The most important of these relics were two chipped knives with ground and polished cutting-edges, a few beautifully-formed scrapers, and a thick, circular disc of Kimmeridge Shale.

Detailed Description of the Relics found in the Cutting.

(All marked in the Plan, Plate VII., and the same numbers are used as Fig. Nos. in Plate VI.)

1. Circular flint scraper (Plate VI.), of a light bluish-white colour, translucent, with portion of the outer coating of the flint on the upper surface; finely chipped all round the bevelled edges; large and prominent bulb of percussion on the lower surface. Depth 1 foot.

2. Long tongue-shaped flint scraper. Depth 1 foot.

3. Flint scraper of long horseshoe-shaped variety; fine ogee-curve on bulb side. Depth 1 foot.

4. Small circular flint scraper (Plate VI.), with a very short tang. Depth 2·3 feet in chalk rubble.

5. Portion of a large bluish-white flint knife (Plate VI.); finely-chipped to a crescentic cutting-edge on one face; on the other the edge has been bevelled by grinding and polishing; some deep facets (some more recent than the time of

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* The line of the cutting was not true N. and S., but 31° east of Magnetic North.

manufacture of the implement) have spoilt the appearance of this face. Found at a depth of 2·3 feet in chalk rubble.

6. Thin scraper of a slaty-coloured flint. Depth 2 feet in mould.

7. Circular scraper of bluish-white flint, chipped all round the edges. Depth 2·2 feet in chalk rubble.

8. Long, worked flake, with longitudinal dorsal ridge. Depth 2 feet.

9. Two flint scrapers, one of circular form; the other of a dark slaty-colour, and of duck-bill form. Depth 1·4 foot.

10. Thin flint scraper (Plate VI.), of light-brownish colour and horse-shoe shape; the bevelled edge very finely worked. Depth 1·3 foot.

11. Two scrapers. Depth 1·3 foot.

12. Thin, well-worked flint scraper (Plate VI.), nearly circular. Depth 1·5 foot.

13. Flint scraper. Depth 1·1 foot.

14. Flint scraper, with large *éraillure* on the bulb of percussion. Depth 1·6 foot.

15. A large quantity of burnt matter or decayed wood (?). Apparently not a cremated interment.

16. Small, thick, flint scraper, with semi-circular bevelled edge.

17. Fragment of British pottery, without quartz grains, black on inside, red on exterior; ornamented by three parallel rows of indented bands.

18. A flat, thin, flint knife of somewhat ovate form (Plate VI.); the crescentic cutting-edge, rather bluntly-bevelled by grinding from both faces. On the opposite side is a deep notch, chipped probably for arrow-shafting; both faces of the implement present excellent examples of conchoidal fracture, and it has every appearance of being in continuous use for a long period. It was picked up on the surface of the barrow.

19. Flake, with a slightly-worked notch, of no particular interest. Flint flakes were plentiful throughout the barrow. A few cores were also found.

20. Circular disc of Kimmeridge Shale, diameter 25 mm., thickness 15 mm. In the centre of both the flat ends there is a slight and small indentation ; precise use of object unknown. Found close to the chalk floor, near "Hole." (See Plan.)

Interments in the Barrow.—In the excavation of this barrow we were rewarded by the discovery of three interments of the Bronze Age, viz., two primary ones by inhumation and a secondary one by cremation.

Secondary Interment by Cremation.—Exactly on the line of the cutting on the west side, and at a distance of 15¾ feet from the southern end of the cutting, we firstly came to a pottery vessel, which appeared to be close to the surface of the depressed summit of the barrow, and it was therefore found necessary to clear a space for a foot or two round the pot. The true nature of the discovery soon revealed itself—a large British cinerary urn inverted,[*] resting on an irregular slab of stone, now measuring about 15¼in. × 12½in., and 2in. thick,[†] covering the burnt remains [‡] of a child (or children) of about 5 years of age, wrapped in what appeared to be a woven bag or pouch. We are not aware that anything precisely similar has been found elsewhere; probably the occurrence of textile fabrics in barrows has never been recorded by those who have merely "rifled" barrows. Thurnam, however, quotes a few instances of the finding of textile fabrics with cremated interments.*

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[*] Thurnam supports Hoare's assertion that Bronze Age cinerary urns are "much more frequently" found inverted than otherwise.

We do not agree with this. The position of urns discovered by Hoare in Wiltshire is only named in 30 instances, and of these 14 were erect and 16 inverted.

It is quite probable that he made a point of recording those that were inverted, the position being naturally more striking.

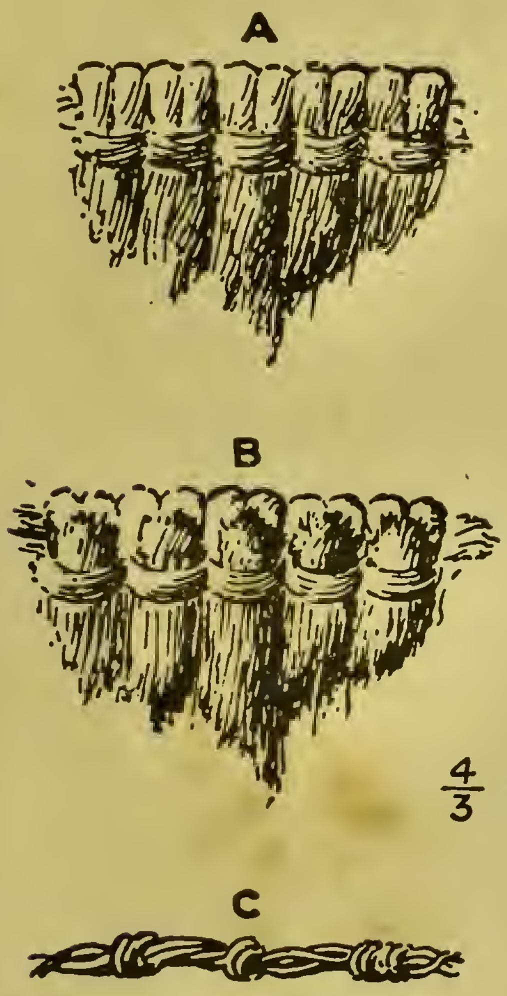
Canon Greenwell says that the urns were "usually deposited standing upright, but very frequently reversed over the bones" (Brit. Barrows, p. 14).

Of the 52 cremated interments found by General Pitt-Rivers connected with Barrow 24, Handley Hill, 47 contained burnt bones and pottery (including several complete urns and portions of urns), 4 burnt bones without pottery, and 1 wood ashes but no bones or pottery. Two only of the urns were found in an inverted position !

[†] At one corner the stone bears a mark where portion of the rim of the urn rested.

[‡] Cremated remains of the Bronze Age are not always found in or under urns, although in Dorset they have been found enclosed in urns in proportion of three to one. In Wilts, according to Hoare, on the other hand, the proportion is only one to three. At Cleveland Mr. Atkinson found that, out of 50 burials by cremation, the bones were deposited in an urn in 32 cases.

According to Canon Greenwell, burnt bones are found enclosed in urns much less frequently on the Yorkshire Wolds than in other parts of England.



Portions of a Woven Bag which contained the Cremated Remains of a Child. Barrow 3, Martinstown.

Far from the bag being in a condition to remove entire, it was only possible to preserve a few fragments, the best of which are represented in the accompanying illustration. A. represents portion of the external upper margin of the bag, B. being the internal view of the same fragment. Several fragments of C. were found; and it probably represents a piece of the string with which the bag of incinerated remains was tied up. Portions of the bag have been microscopically examined through the kindness of Professor H. B. Farmer, who has sent the following report:—

"The carbonised wrapping, a sample of which you sent me, is certainly not hemp, so far as its condition makes identification possible. There seem to be two, at any rate, plants, one of which is a grass.

"I should say that the twist is made primarily of grass stems, with perhaps the leaves, and that there is an accidental mixture of something else.

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* Archæologia, Vol. XLIII., p. 326.

"The grass stem I judge by the occasionally very well preserved epidermis with characteristic cells and stomata. Moreover, the woody parts are sufficiently present to lend confirmatory evidence.

"I cannot say to what species it belonged.

"I think I may quite definitely say that none of the material contained flax. I examined several samples, both of the twisted bit and of the loose fragments, and all of them were alike. There were no long strands such as would suggest flax.

"The fact that the outside skin (epidermis) of the tissue was preserved is strongly against the possibility of flax being the substance used, as this would have been eliminated in the netting processes."

The urn, the base of which was at a depth of only 1·4 foot from the surface, was found in a much shattered condition. The fragments numbered about 150, and were for the most part in their proper positions. It has now been carefully restored,[*] and presents a very imposing appearance. It is far above the usual size of a British cinerary urn, averaging 15 inches in height[†]; exterior diameter at rim averages 13¾ inches; interior diameter, 13¼ inches; circumference at most prominent part below shoulder, 43½ inches; diameter at base, 6⅞ inches; average width of the overhanging rim, 3⅜ inches. There is nothing unusual about the ornamentation, and the photograph (Plate VIII.) is so excellent that it needs no description. The ornamentation on the inside of the top of the rim cannot, however, be seen. The rim contracts and slopes inwards to a projecting ridge which is decorated with two parallel bands of impressed cord ornament; this is quite usual with this type of urn. The pottery is of a dark brown colour, and contains no grains of quartz or other grains, and in this respect resembles all the other pottery found in these

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[*] Restored by Mr. C. S. Prideaux.

[†] Greatest height, 15⅜in.; least height, 13⅞in.

Martinstown Barrows, corresponding, as we said before, with the No. 2 British pottery of Pitt-Rivers.

A somewhat similar and very large urn, with overhanging rim, was found by General Pitt-Rivers in Barrow 24, Handley Hill, North Dorset. It was also inverted, and was one (No. 42) of no less than 52 cremated interments connected with one barrow.* With this Handley cremation one of the very rare bone tweezers was found,† of which only two or three specimens are known from Dorset.

This type of cinerary urn is figured by Thurnam in Archæologia ‡ from a barrow on Beacon Hill, Mendip; height, 16½ inches. A similar urn was found inverted over an interment of burnt bones in a small barrow on Lamb Down, Codford, Wilts; it is 16½ inches in height. § Another was found by Sir R. C. Hoare at Durrington, Barrow 69; height, 13½ inches. || Another of similar form was found by Hoare at Woodyates,¶ Barrow 17; height, 18½ inches. Numerous other instances of this type of urn could be cited, but those quoted are sufficient for the purpose.

There are at least three examples of cinerary urns of the type of that under consideration, with overhanging rims, in the Dorset County Museum. No. C80 is an unornamented specimen of this class, height about 15½ inches, found many years ago in a barrow formerly standing behind Sidney Terrace, Dorchester. Two bronze daggers were found in this barrow when it was destroyed in 1885. Another of this class is represented by C78, about 16½ inches in height, found with a cremated interment at Winterborne Abbas. A third and smaller

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* Excavations in Cranborne Chase, Vol. IV., Plate 301, Fig. 6.

† *Op. cit.*, Vol. IV., Plate 298, Fig. 7.

‡ Vol. XLIII., Plate xxx., Fig. 1.

§ Figured in "Catalogue of Antiquities in Devizes Museum" (Wilts Arch. Soc.), Part I., the Stourhead Collection, 1896, p. 64.

|| *Op. cit.*, p. 47.

¶ *Op. cit.*, p. 66; also Archæologia, Vol. XLIII., p. 346.

example is C37, about 11 inches high, found in a tumulus at Bincombe Hewish in 1850.

Close to the urn in Barrow 3 a piece of decomposed granite was found at a depth of 1·5 foot in mould.

Primary Interments by Inhumation.

Grave I.—On the eastern line, or boundary, of the cutting, the upper edge of Grave I., at the southern end, was found at a distance of 7½ feet from the S.S.E. corner of the cutting, and the edge at the northern end at a distance of 14½ feet from the same point. In removing the *filling* of this grave it was found that, owing to the existence of two distinct ledges, or steps, of undisturbed chalk, the grave became more contracted as the re-excavation proceeded. The grave, that is from the lower ledge downwards, was found to be more or less elliptical; length, 5·4 feet; greatest width, 3·7 feet. The bottom was reached at a depth of 5 feet from the surface of the barrow and 2·3 feet below the level of the surface of the solid chalk. The sides of the grave were very smooth on the south, south-east, south-west, and north-east, and fairly even all the way round. The filling consisted of chalk rubble mixed with nodular flints, but not in such large quantities as in Barrow 2, and not sufficient to justify the name of "cairn" being introduced. Interspersed amongst the filling a quantity of bones of young children were turned up, and also fragments of decomposed or burnt wood.

The interment proved to be another contracted one, lying on its right side—a young male; length of left femur, 1·52 foot; of tibiæ about 1·3 foot; giving an estimated stature of 5 feet 8½ inches.

The feet were to the N.N.W.; head to S.S.E., facing N.N.E.; skull much fractured. Length from top of head to toes, 4·2 feet; width from right knee to lumbar vertebræ, 2·2 feet.

The left humerus was resting across the top of the thorax, the hand nearly reaching right femur. The hand of right arm was drawn up over the right shoulder, the angle at the elbow being very acute. The legs were much drawn up, as in all the Martinstown cases; the right knee was within 3 inches of the side of the grave; the right wrist only 2 inches from ditto; the feet almost touched the side of the grave on the N.N.W. The vertebral column was in a fairly straight line.

As in the case of the skeleton in Barrow 2, this skeleton, being in a bad state of preservation and of no interest for anthropological measurements, was covered up after excavation, the usual leaden tablet recording the excavation being deposited with the skeleton.

There is no doubt about the Bronze Age date of this interment, for behind the vertebræ and on the bottom of the grave the base and portion of the side (in fragments) of what was apparently an ornamented food-vessel was found. (Plan, Plate VII., "21.") The pot was 3⅝ inches in diameter at the base, the sides averaging ⅜ inch in thickness. It is of the usual soft British quality, black inside and light reddish-brown on the exterior. The indented ornamentation consists of bands of chevrons pointing in opposite directions, with parallel horizontal bands of conjoined oblong punch-marks between. The chevrons are filled with elongated indentations, as shown on the small fragment figured in Plate VI., Fig 21.

Grave II.—On the western line of the cutting the S.S.W. margin of Grave II. was found immediately after the removal of the cremated interment, at a distance of 17 feet from the S.S.W. corner of the main cutting, the northern margin of the grave on the same line being 22 feet from the same point. The upper margins of Graves I. and II. were separated by 3·4 feet of the solid chalk floor.

This proved to be the most interesting of the three primary interments found in Barrows 2 and 3, although in much the same contracted posture. It is much to be regretted that no relics whatever—not even a fragment of pottery—were associated with this interment. An excellent photograph of it, *in situ*, is represented in Plate IX.

This fine grave was hewn to a depth of 3 feet into the solid chalk, the depth from the surface to the bottom of the grave being 5·9 feet. The N.W. end of the grave had a particularly smooth face ; the sides were nearly vertical, the length at bottom being 6·7 feet and the greatest width 4·1 feet.

The skull, which was in almost perfect condition, was found to the north-west, facing in a north-easterly direction. It was 1·1 foot from the N.W. side of the grave, the left knee being at the same distance from the E. side. The right toes were 1·4 foot and the pelvis 0·7 foot from the margin of the grave. As will be seen in the photograph, the lower jaw, a somewhat powerfully-developed one, was found at some little distance from the skull, and had doubtless been detached from it previously to the grave being filled in. By-the-bye, the *filling* of the grave in this case consisted of chalk rubble, with flints in no considerable quantity.

In this instance the skeleton rested on its left side. The left arm was in almost a direct line from the left shoulder to right knee. The right arm was bent at an angle of about 80°, with hand in front of face. The pelvis was in good order, the vertebral column fairly straight, and both the legs drawn up to angles of about 35°. The length from top of skull to toes of right foot was 3·9 feet; greatest width from back of pelvis to left patella, 2·3 feet.

The leg bones were measured approximately as the skeleton —a fully adult male, probably middle-aged—rested *in situ*; length of right femur, 1·6 foot; right tibia, 1·35 foot; which gives a stature of 5 feet 11·9 inches—nearly 6 feet.

This skeleton, with the exception of the skull, was also left *in situ*, and covered up at the completion of the excavations, the usual leaden label being previously deposited.

In extending the excavations on the two last days in N., N.E., W., and S.W. directions, no further interments were discovered, but a hole of uncertain intention, marked on the Plan, Plate VII., was found cut out of the solid chalk. It was not a natural depression, and in general form was that of an inverted cone with the apex missing; average diameter at surface of chalk floor 1·8 foot, at bottom 5 inches, the sides tapering off very considerably. The depth of the hole in the solid chalk was 1·5 foot. In it were found the larger portion of an anterior vertebra of a cetacean and part of the tibia of a red-deer (*Cervus elaphus*);* also a lot of decomposed cellular bone, with some small yellow particles, like sulphur, scattered through the mass.

These excavations at Martinstown, extending over a fortnight in all, have, therefore, in addition to the miscellaneous relics, produced four primary interments by inhumation and two secondary interments by cremation. None of them, we think, judging from the circumstances of the finding, and the relics both associated with them and found in other parts of the barrows, are more recent than the middle of the Bronze Period, and we are inclined to assign some of them to a time slightly earlier in the Bronze Age. As *types* of prehistoric ceramic art in Britain, it is now generally understood that the beaker was earlier than the food-vessel, and that the cinerary urn was the latest.

APPENDIX.

NOTES ON THE SKELETON FROM BARROW I., MARTINSTOWN, DORCHESTER, 1903.

By J. G. Garson, M.D., &c.

The human remains placed in my hands for examination by Messrs. Gray and Prideaux consist of a skull nearly complete but which had been much broken, the sacrum, the left innominate, and several of the long bones of the limbs, belonging to one skeleton. There were also sent some small portions of the skull and other parts of the skeleton of one or more infants, but these were so fragmentary that little can be made out regarding them with any degree of certainty. I, therefore, think it better to confine my notes to the skeleton of the more adult individual, beginning with the skull.

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* Prof. W. Boyd Dawkins, F.R.S., has seen these bones.

The Skull.—In general form it is long and narrow in respect to both the calvarial portion, or that portion which covers in the brain, and therefore, in popular language, termed the brain-case, and the facial portion. The condition of metopism, that is, of persistence of the mesial frontal suture, which is usually obliterated at an early stage of life by complete fusion of the two halves of the frontal bone, is present and is well marked. There is considerable asymmetry of the calvarium readily noticeable when viewed from above. The left half of the frontal is prominent, especially above the middle and inner third of the left orbit, while the right half falls away, or recedes. Behind, the right half of the occipital bone is bulging backwards, while the left half is less prominent. This obliquity extends to the parietal bones also, and shows itself by the line of the sagittal suture slanting somewhat from right to left as it is traced backwards from the bregma. It is very probable that the asymmetry is due to *post mortem* pressure upon the skull as it lay in the soil in a more or less damp and softened condition. The ridges for the attachments of muscles are feebly developed, and the surface of the bone generally has a smooth appearance. The orbital processes and the mastoids are small and little developed ; the glabella and supra-orbital region, excluding the irregularity due to asymmetry, are moderately prominent; the upper edges of the orbits are thin and sharp. The parietal eminences are not prominent, but there is a want of combined fulness and roundness about this region which is at once noticeable. The sutures are open and simple, and there are a few small wormean bones present in the parieto-occipital suture. While the ridges on the under surface of the occipital are feebly developed and in harmony with those on the other parts of the calvaria, the bone in the region of the foramen magnum is thick, especially at the edges of the foramen, which itself is particularly long and narrow. The basilar suture is open. The facial portion is in general form long and narrow, as is indicated by the facial indices given below being high. The nasal opening is narrow, but owing to the broken condition of the specimen the nasal height could not be sufficiently accurately ascertained on a short measurement such as it is to warrant a statement of the nasal index. The orbits also are imperfect. Viewed from the side the profile is straight, the alveolar region showing no prognathism as is indicated by that index and the palato-maxillary index. The lower jaw is feeble, and the gonial angle (that formed by the horizontal and ascending rami) is obtuse; the chin is pointed and well formed. The incisor teeth are well developed and sound; the last molars have not appeared above their formative cavities in the mandible, but are just showing on the surface in the maxillæ. The premolars and first two molars show no signs of wear, and are comparatively of small size.

The skull is light and has been broken in many places, and although it has been skilfully restored by Mr. Gray the following measurements are in some cases not always absolutely exact, though sufficiently accurate, perhaps, for practical descriptive purposes :—

1.	Antero-posterior median length (max.) ..	196 mm.
2.	Transverse breadth (max.)	140 ,,

3.	Basio-bregmatic height	148	mm.
4.	Minimum frontal breadth	101	,,
5.	Bi-asteric breadth	110	,,
6.	Bi-auricular breadth	119	,,
7.	Bizygomatic breadth	c127	,,
8.	Bimalar breadth	115	,,
9.	Maximum bi-maxillary breadth	93	,,
10.	Minimum bi-maxillary (Palato-maxillary) breadth	65	,,
11.	Basio-nasial length	109	,,
12.	Basio-alveolar length	c96	,,
13.	Nasio-alveolar length	c82	,,
14.	Nasio-mental length	129	,,
15.	Nasal breadth	23	,,
16.	Palato-maxillary length	53	,,
17.	Horizontal circumference	534	,,
18.	Auriculo-bregmatic arc	326	,,
19.	Total transverse circumference (6 + 17)	445	,,
20.	Frontal arc	135	,,
21.	Parietal arc	134	,,
22.	Occipital arc	116	,,
23.	Foramen magnum length	43	,,
24.	Nasio-bregmatico-basial length	428	,,
25.	Total longitudinal circumference (11 + 24)	537	,,
26.	Bigonial breadth of mandible	102	,,
27.	Antero-posterior diameter of ascending ramus	32	,,

The following are the principal indices as far as they can be ascertained from the condition of the skull :—

Cephalic index (breadth to length)	71·5
Height index (height to length)	75·5
Alveolar or gnathic index (12 to 11)	88·1
Total face index (14 to 7)	104·0
Upper face index (13 to 7)	66·1
Palato-maxillary index (10 to 16)	122·6

NOTES.—The figures within brackets refer to the measurements used in forming the index, which in each instance expresses the relation of the first to the second in percentage ; c before a measurement stands for *circum*, and shows that it could not be made with exact accuracy.

The other Bones.—The *innominate* bone is imperfect ; the marginal or crest epiphysis of the ilium and the ischial epiphysis are wanting, and had been ununited to these bones. The intermediate bone in the ascetabulum was also absent, and had not been united to its floor. The *femur* is well developed, its circumference being 81 mm. in the middle of the shaft ; the epiphyses of the head, trochanters, and lower extremity are ununited to the shaft ; the angle formed by its head and neck with the shaft is obtuse. The *tibia* and *fibulæ* have their epiphyses ununited to the shaft; the antero-posterior diameter of the former at the nutrient foramen is 31 mm., and the transverse diameter at the same level is 21 mm.; while in the middle of the bone these measurements are 28 and 21 mm. respectively. The *humerus* has the upper epiphysis ununited, but the lower epiphyses are quite united to the shaft; the epitrochlear process (internal condylar process) appears to have been broken off. Its circumference in the middle of the shaft is 69 mm. The *radius* has its epiphyses at both ends ununited to the shaft. All these bones are well developed as to size and muscular ridges for their stage of growth. As will be learned from the condition of the epiphyses, they have not attained their full size.

The following are the dimensions of such of the long bones as were perfect enough for measurement:—

Right Femur	462 mm.
Left Tibia	378 ,,
Right Humerus	330 ,,
Left Radius..	255 ,,

From these measurements I have calculated the probable stature of the individual, both according to Rollet formulæ and by the newer methods of Prof. Karl Pearson. But before entering upon this subject it is necessary to state the age and sex of the individual as indicated by the skeleton. The condition of the basilar suture, the teeth, and the state of the epiphyses of the bones, enable us to determine the age of the individual at the time of death to have been between 18 and 19 years. The question of sex is a difficult one in some cases, even in adults, and still more so in adolescents. In the former the chief difficulty, once one has become familiar with the race to which the specimen belongs, is to distinguish a small ill-developed man from a well-developed and big woman. When handling the skull in the first instance I confess to having had some doubt as to the sex in this particular instance, but doubt was soon dispelled after full examination of it and the other bones. Let me parenthetically remark that this demonstrates very well how important it is to secure the limb bones as well as the skull in all instances. The relative proportions of the limb bones to the stature are different in men and women, and, therefore, irrespective of other data afforded by them, materially assist in the determination of sex in doubtful cases. The age and state of development of the skeleton, as well as the results yielded by the different formulæ for estimation of stature, had in this case to be carefully considered in coming to a decision as to the sex. The conclusion I have come to is that this is undoubtedly the skeleton of a male.

The indicated stature from the several long bones shows that proportionately the radius is abnormally long, while the humerus is slightly shorter than the normal mean. The indicated statures from the femur, tibia, and humerus agree very well, but the femur, as has been shown to be generally the case by Prof. Karl Pearson, gives on the whole apparently the best result; the other two indicated statures from the tibia and humerus respectively deviating on either side of it. Using the three best formulæ of Rollet, and taking the mean of them for each of the three bones, the probable stature of the individual was 1 m. 69 (= 66½ inches). By Pearson's method, in which the various elements of uncertainty have by mathematical calculations been excluded, the indicated stature is 1 m. 68 (nearly = 66¼ inches). These two systems of estimating height give wonderfully similar results in this case, and it may be taken as conclusive that we have got as near the truth as possible. On the basis that the bones were those of a young woman the stature indicated would be 1 m. 76 (= 69¼ inches), or even as much as 1 m. 83 (over 6 feet). This taken in conjunction with the characters of the skull, and the probable ultimate length which would have been attained by the bones on completion of growth had the individual lived till that period, put the assumption out of court.

Let us now consider the morphological characters of this skeleton in relation to the early races of Britain. The form of the cranial box is markedly dolichocephalic, its index being 71·5, while the complete facial index is 104, which is also markedly dolichofacial, or leptoprosopic as it is sometimes termed; the immature stature, as we have seen, was 1 m. 68 or 9 at the age of 18-19 years, and, from a large number of statistics on growth, might normally be expected to reach 3 cm. more, which would indicate at adult age a probable stature of 1 m. 71 or 2. The interment and articles found with the skeleton point undoubtedly (as Mr. Gray informs me) to the Bronze Age as being the period when the body was deposited in the barrow.

The form of calvaria typical of the Bronze Age people is brachycephalic, while the face is dolichofacial, and the stature calculated by Prof. Karl Pearson's methods is 1 m. 71 for males, 1 m. 60 for females. The characteristics of the preceding Neolithic race are a dolichocephalic calvaria, a brachyfacial (or chæmeoprosopic, as it is sometimes called), face, the stature being, by Pearson's method of calculation, 1 m. 67 for the males and 1 m. 536 for the females.

The earlier race lived in certain parts of the country side by side with the later, and in some cases intermingled with them, and both have influenced the population of the present day. From these facts it will be seen that the individual whose skeleton has been under examination conformed in stature and in the form of his face to the Bronze Age race, while in the shape of the calvaria he shows decidedly the characters of the Neolithic people.

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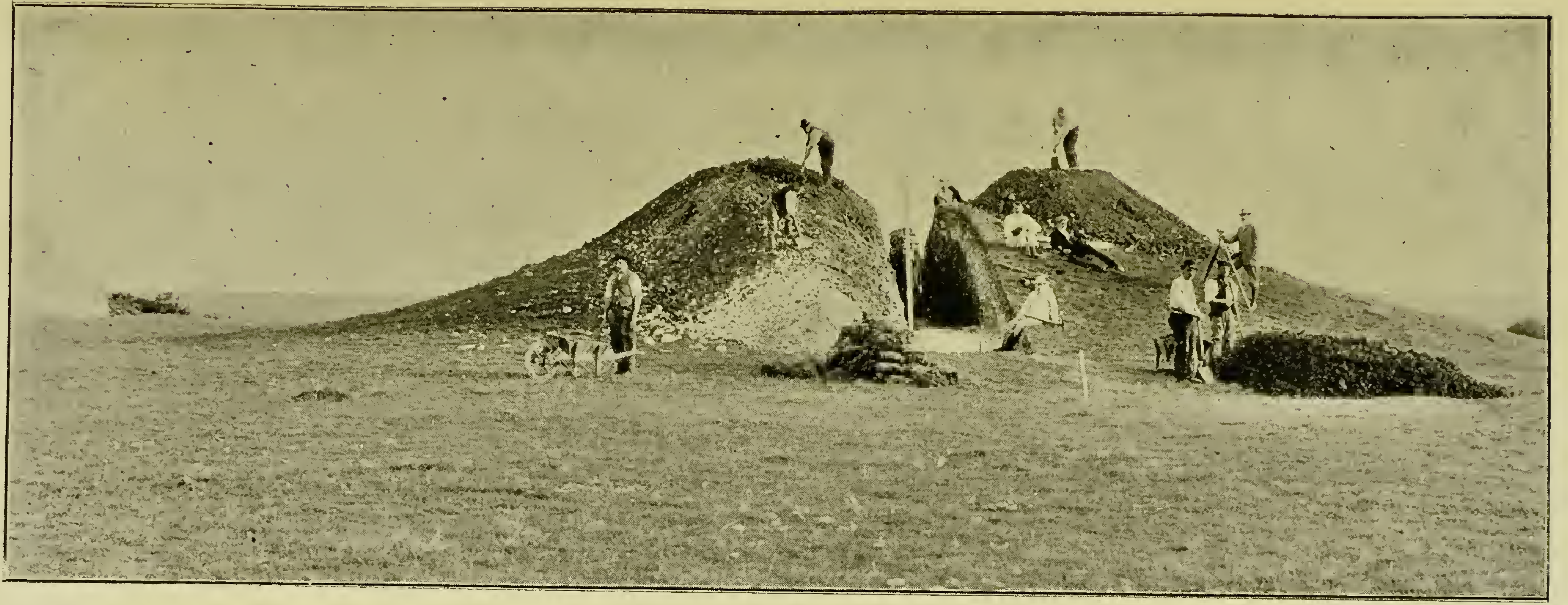
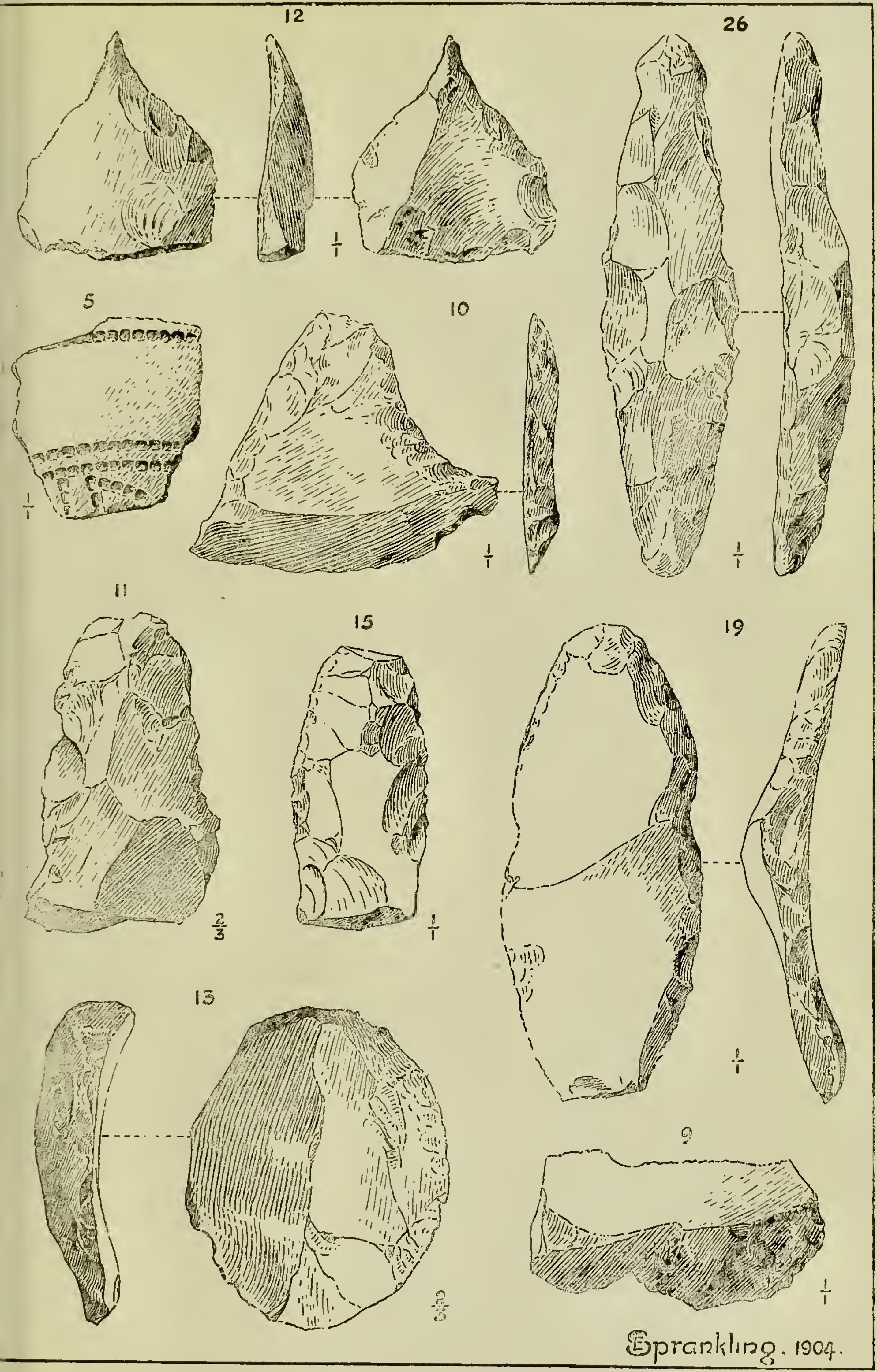
Plate II.



GENERAL VIEW OF THE CUTTING THROUGH BARROW I., MARTINSTOWN, FROM THE N.N.E, 1903.

[From a photograph by H. St. George Gray.

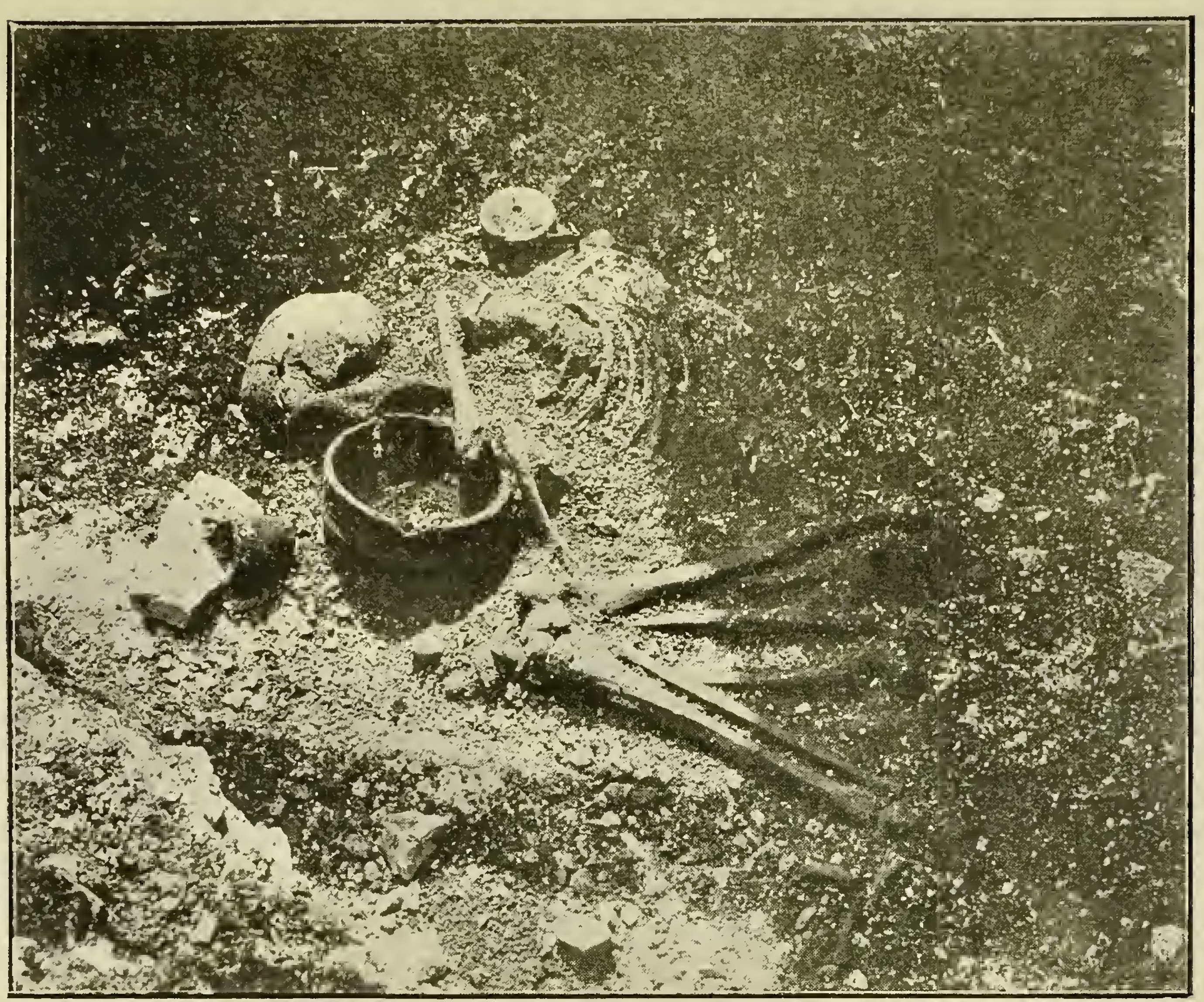
Plate III.



RELICS UNCONNECTED WITH THE INTERMENTS FOUND IN BARROW I., MARTINSTOWN.

[illegible]

Plate V.



Primary Interment of the Bronze Age, found in a Grave cut in the chalk under Barrow I., Martinstown, 1903.

[From a photograph by W. Pouncy.

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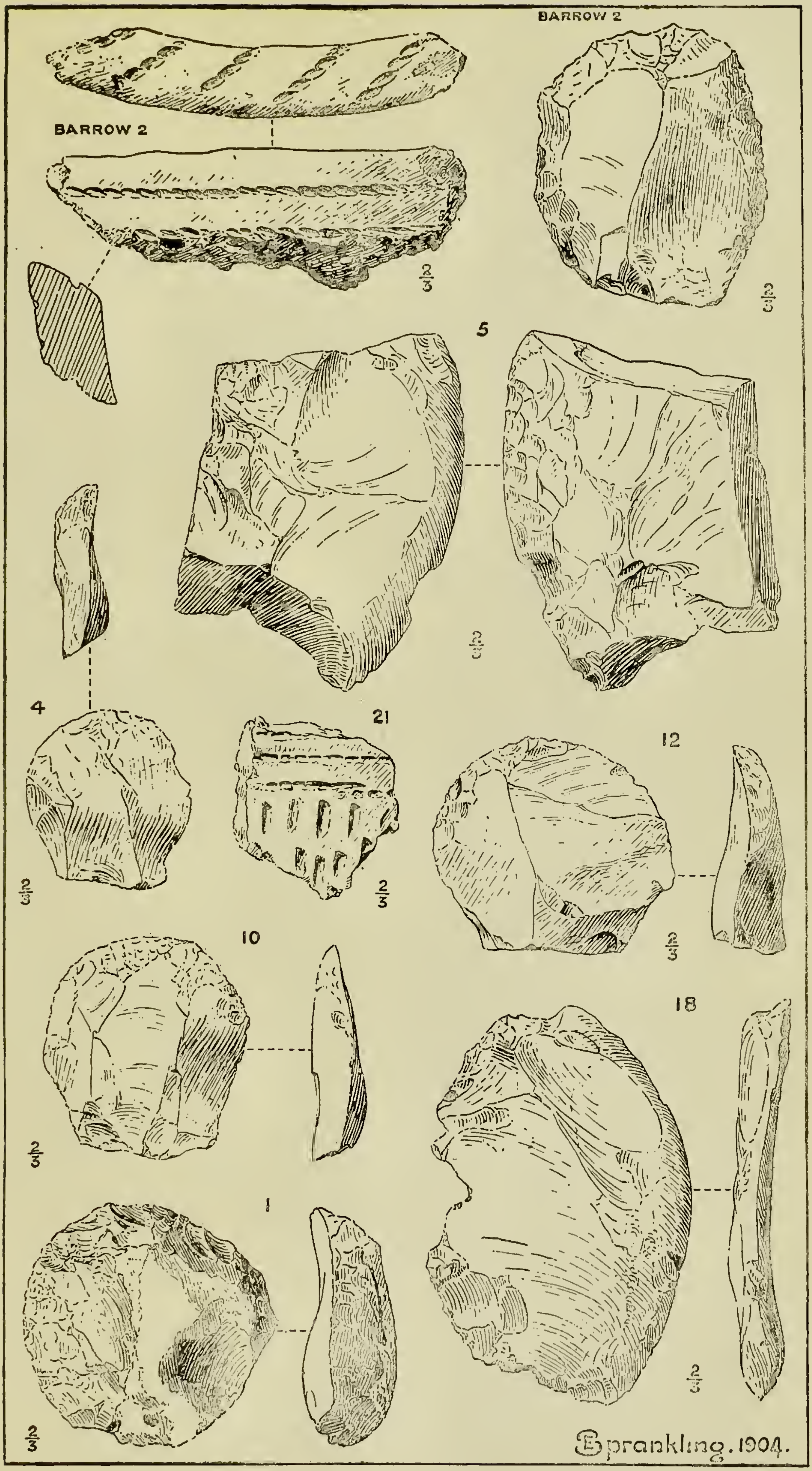
Plate VI.



FLINT IMPLEMENTS AND POTTERY
FOUND IN BARROWS 2 AND 3, MARTINSTOWN, 1903.

(All except the two upper figures were found in Barrow 3.)

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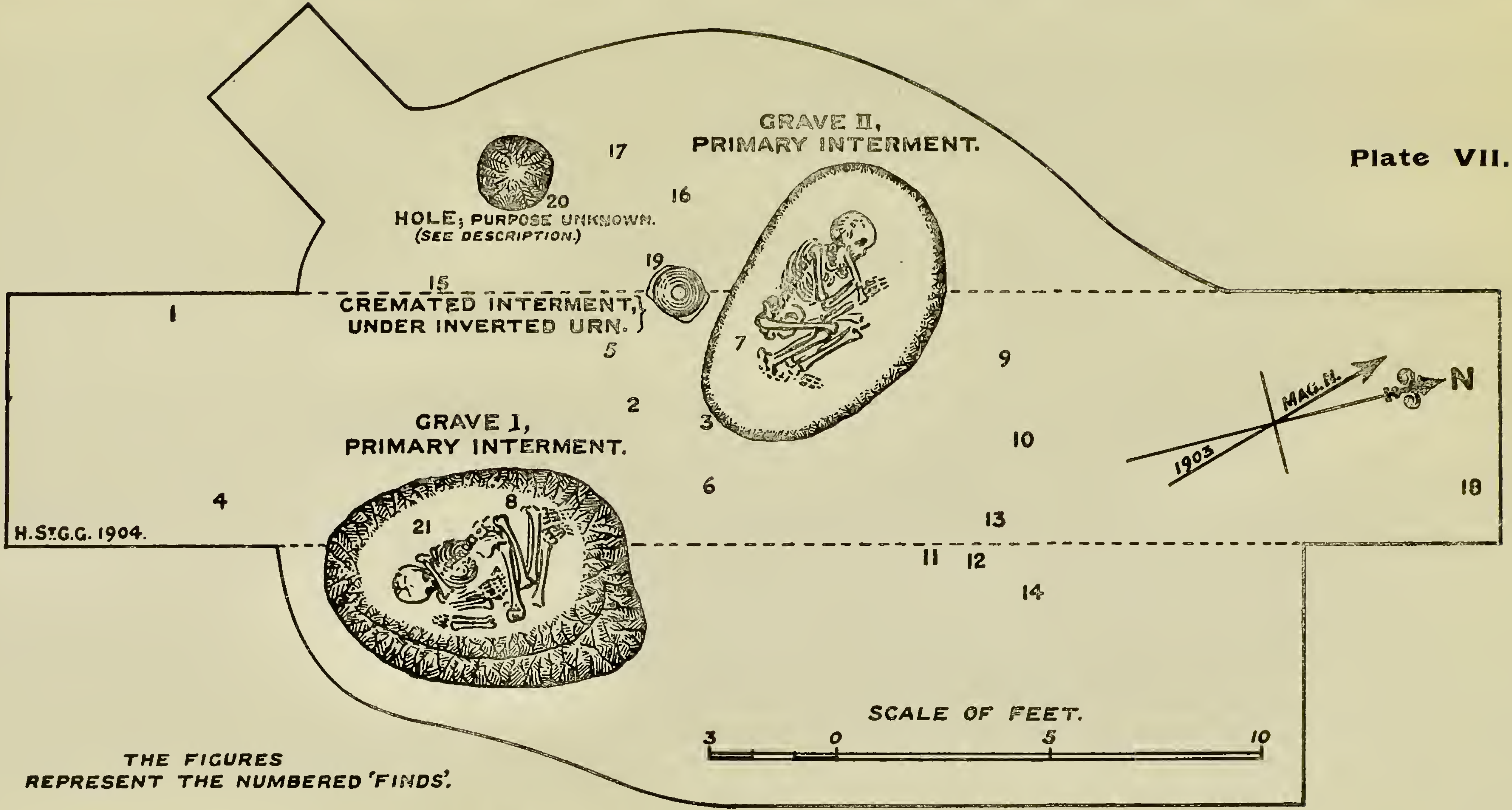
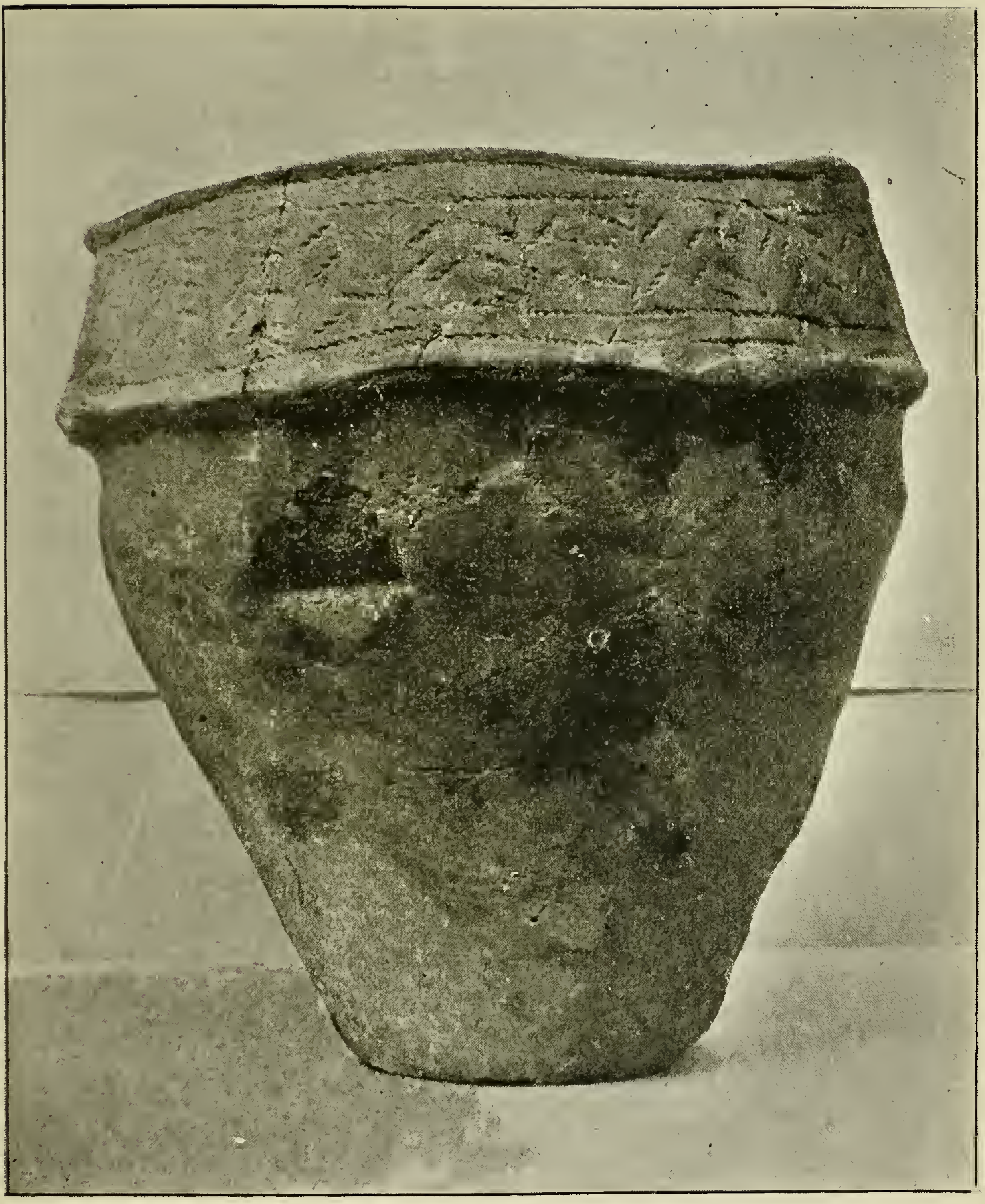
Plate VII.



PLAN OF EXCAVATED PORTION OF
BARROW 3, MARTINSTOWN, DORSET.

[illegible] 25

Plate VIII.



LARGE BRITISH URN FOUND INVERTED AND CONTAINING THE CREMATED REMAINS OF A CHILD (SECONDARY INTERMENT), BARROW 3, MARTINSTOWN, 1903.

(Scale ¼ linear.) [From a photograph by W. Pouncy.

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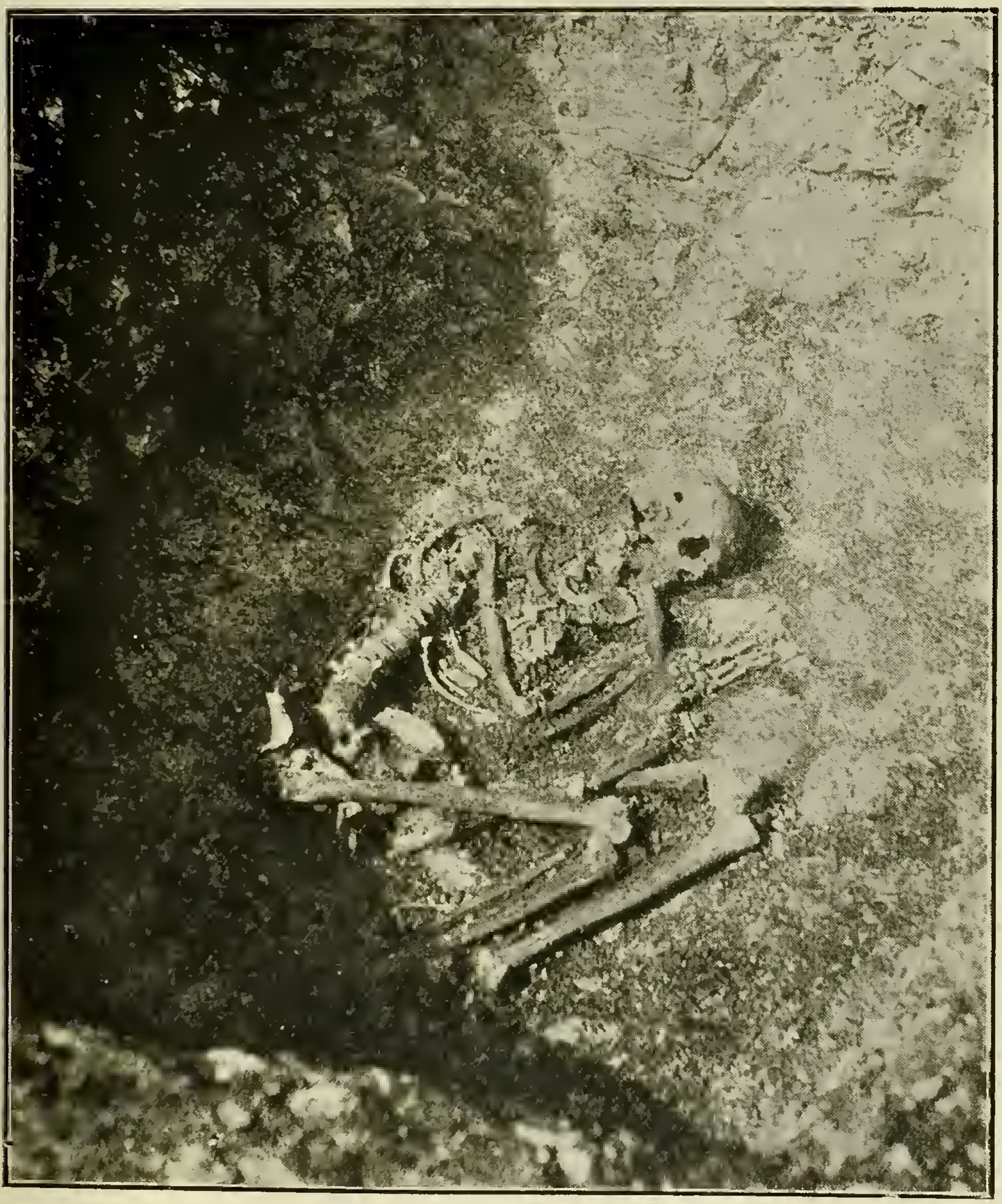
Plate IX.



PRIMARY INTERMENT OF THE BRONZE AGE FOUND IN GRAVE II., BARROW 3. MARTINSTOWN, 1903.

[From a photograph by W. Pouncy.

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